

In the Claims

Applicant has submitted a new complete claim set showing marked up claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please cancel claims 8-11, 15, and 20-21 without prejudice or disclaimer.

Please amend pending claims 12-14 as noted below.

Please add new claims 22-31.

Please amend pending claims 12, 13 and 14 as noted below.

1. (Withdrawn) A system (2) for evaluating the efficacy of therapeutic treatments of patients (40) located at remote sites (6), the system including:
 - a central analysis site (4);
 - a plurality of remote test sites (6);
 - input means (24) at the central analysis site for inputting signals representative of a cognitive task;
 - means for communicating the input signals (12) to selected remote test sites via a network (10) which provides two-way communication between the central analysis site and the remote sites;
 - receiving means (14,30,44) at the remote test sites for receiving the input signals and presenting the cognitive task to a patient (40) (i) before and (ii) during or after carrying out a therapeutic intervention or treatment;
 - detecting means (38,42) at the remote test sites for detecting brain response signals from the patient to said cognitive tasks;
 - means for communicating (14) said brain response signals to said central analysis site via the network;
 - processing means (16) for assessing the efficacy of the therapeutic intervention or treatment on the basis of differences in brain response signals before and during or after carrying out the therapeutic intervention or treatment; and
 - wherein the processing means (16) includes means for calculating amplitude and/or phase steady state visually evoked potentials (SSVEP) from said brain response signals for each site where a patient is treated.

2. (Withdrawn) A system as claimed in claim 1 wherein the remote sites include storage devices (44) for storage of signals representing said cognitive task.
3. (Withdrawn) A system as claimed in claim 1 wherein the processing means includes means for detecting changes attributable to the therapeutic intervention or treatment in SSVEP amplitude and/or phase topography.
4. (Withdrawn) A system as claimed in claim 1 wherein the detecting means (38) includes a plurality of electrodes on which said brain response signals are received and the processing means includes means for detecting changes attributable to the therapeutic intervention or treatment in inter-electrode SSVEP coherence.
5. (Withdrawn) A system as claimed in claim 3 wherein processing means produces output signals which represent animated brain maps.
6. (Withdrawn) A system as claimed in claim 5 wherein said means for communication transmits said output signals to the remote site from which said output signals were derived for presentation to a clinician.
7. (Withdrawn) A system as claimed in claim 6 wherein the remote site includes display means for display of said output signals as animated brain maps.
- 8-11. (Cancelled)
12. (Currently Amended) A method as claimed in claim [[11]] 22 wherein the psychotropic medication comprises a chemical compound or compounds used in the treatment of psychiatric, psychological, behavioural, educational or neurological disorders.
13. (Currently Amended) A method as claimed in claim [[12]] 22 wherein the step of assessing the efficacy [includes] comprises the [steps] step of detecting changes [[associated with therapeutic intervention in the SSVEP]] in amplitude and/or phase [[topography.]] of said first and second SSVEPs.
14. (Currently Amended) A method as claimed in claim [[12]] 24 wherein the steps of obtaining first and second output signals are effected by placing electrodes on the scalp of the patient, the first and second output signals being produced on said electrodes and the step of

assessing the efficacy [includes] comprises detecting changes in inter-electrode SSVEP coherence.

15. (Cancelled)

16. (Withdrawn) A system for evaluating the efficacy of therapeutic treatments of patients (40) located at remote sites, the system including:

a central analysis site (4);

input means (24) for inputting signals representative of a cognitive task;

means for communicating the input signals (12) to selected remote test sites via a network (10) which provides two-way communication between the central analysis site and the remote sites for transmission of said signals to selected remote sites for presentation to a patient (i) before and (ii) during or after carrying out a therapeutic intervention or treatment;

means (14) for receiving said brain response signals of the patients transmitted to said central analysis site via the network;

processing means for assessing the efficacy of the therapeutic intervention or treatment on the basis of differences in brain response signals before and during or after carrying out the therapeutic intervention or treatment; and

wherein the processing means (16) includes means for calculating amplitude and/or phase steady state visually evoked potentials (SSVEP) for each site where a patient is treated.

17. (Withdrawn) A system as claimed in claim 16 wherein the processing means includes means for detecting changes attributable to the therapeutic intervention or treatment in SSVEP amplitude and/or phase topography.

18. (Withdrawn) A system as claimed in claim 17 wherein processing means produces output signals which represent animated brain maps.

19. (Withdrawn) A system as claimed in claim 18 wherein said means for communication transmits said output signals to the remote site from which said output signals were derived.

20-21. (Cancelled)

22. (New) A method of evaluating the efficacy of treatment of a neuropsychiatric disorder of a patient at a remote site comprising the steps of:

presenting a first cognitive task to the patient at the remote site;
recording a first steady state visually evoked potential (SSVEP) corresponding to when the patient is presented with the first cognitive task;
administering a dose of psychotropic medication to the patient;
presenting a second cognitive task to the patient at the remote site, the second cognitive task being similar to or the same as the first cognitive task;
recording a second steady state visually evoked potential (SSVEP) corresponding to when the patient is presented with the second cognitive task; and
assessing at a central site the efficacy of the psychotropic medication on the basis of differences between the first and second SSVEPs.

23. (New) A method as claimed in claim 22 wherein the step of assessing the efficacy comprises the step of detecting changes in coherence of said first and second SSVEPs.

24. (New) A method as claimed in claim 22 comprising the steps of obtaining first output signals representing the response of the patient's brain to said first cognitive task;
obtaining second output signals representing the response of the patient's brain to said second cognitive task whilst under the influence of said medication;
transmitting the first and second output signals to the central site; and
calculating the amplitude, phase and/or coherence of said first and second SSVEPs from said first and second signals respectively.

25. (New) A method as claimed in claim 24 comprising the steps of transmitting from the central site to the remote site first and second input signals representative of said first and second cognitive tasks.

26. (New) A method as claimed in claim 25 wherein the first and second input signals and the first and second output signals are transmitted via the Internet.

27. (New) A method as claimed in claim 26 wherein there are a plurality of said remote sites.

28. (New) A method as claimed in claim 26 wherein a report of the step of assessing the efficacy is transmitted to a clinician at the remote site.

29. (New) A method as claimed in claim 22 wherein a clinician administers the dose of psychotropic medication to the patient at the remote site and a report on the step of assessing the efficacy of the psychotropic medication is transmitted to the clinician via the Internet.

30. (New) A method as claimed in claim 29 wherein the dose is a test dose and said report comprises an indication whether or not the patient is likely to benefit from long term administration of the psychotropic medication.

31. (New) A method as claimed in claim 29 wherein the first and second cognitive tasks are downloaded from the Internet at the remote site.